Remarks

Applicant hereby petitions for and includes a petition for a one-month extension and includes the necessary fees to make payment therefore.

Claims 1-74 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Carmody (US 2002/0143596).

The Examiner agrees that Carmody does not specifically teach detecting a physical presence of one or more service personnel at each of the plurality of wastewater systems. Moreover, "setting up a meeting between the owner and service personnel," as suggested by the Office Action, does not supply the claim 1 requirement of detecting the physical presence of the personnel at "each of the plurality of wastewater treatment systems," as is also required by claim 1. Certainly, "setting up meetings" cannot be utilized by each of the many thousands of wastewater site owners to verify the physical presence of the work personnel for each inspection/maintenance call (typically several calls per year for wastewater systems such as aerobic wastewater systems) at "each of the plurality of wastewater systems" as is specifically required by claim 1. Most people work, have other responsibilities, and are not home the entire day, and simply cannot realistically take time off from work to meet with the wastewater personnel, e.g., wastewater system personnel for each scheduled inspection, scheduled and/or unscheduled maintenance, and/or service and/or repair. As is well known, in order to support a rejection under 35 U.S.C. 103(a) all the claim limitations must be taught or suggested by the prior art. The showing must be clear and particular. See, e.g., C.R. Bard, 157 F.3d at 1352, 48 USPQ2s at 1232. See M.P.E.P. 2143.03. Accordingly, because Carmody admittedly does not teach detecting a physical presence of service personnel, and plainly does not teach detecting the physical presence at each of the plurality of wastewater systems as is specifically required by claim 1, the rejection to claims 1-74 over Carmody is respectfully traversed.

Applicant respectfully submits that in reality, in almost all cases, without the physical presence sensor, there will be no proof for the owner or the regulator that the required inspections and required system maintenance(e.g., filter replacement, motor maintenance, foam level operational controls) was ever performed in most cases. As noted below, there is a basis for concern that many

inspection reports are falsified. Applicant also respectfully notes that to "set up a meeting with the service personnel" is problematic in another significant way. Applicant respectfully points out that not all wastewater system owners are particularly interested in paying maintenance personnel several hundred dollars over a contract period of typically about two years to come out to inspect their system when the system is not known to be malfunctioning. In Carmody's system, which operates on a highly optimistic view of human nature, the call by the owner for "setting up an appointment" may not ever be made as per Carmody's step 201 for regular inspection, especially for certain types of wastewater systems. It is respectfully noted that, also unlike Applicant's automated system which automatically detects many equipment failures, the call by the owner as per Carmody's step 201 may not be made even in spite of a malfunction of the owner's system whereby the system is discharging polluted water, regardless of the potential danger to the environment. On an even more realistic note, it is respectfully noted that most people do not voluntarily report themselves for violation of regulations by calling the agency to request system service, as is apparently contemplated by the "red flag" function Carmody's system. Carmody is oblivious to these inherent design problems with his system which is incapable of and plainly never recognized or contemplated addressing these problems.

The Office Action goes on to state that "Carmody would perform the invention as claimed by Applicant with either specifying detection of a physical presence of said service personnel, or not". As best as can be determined by Applicant, although not explicitly stated, the claims are therefore impliedly being rejected under 35 U.S.C. 101, for lack of any additional utility with respect to the addition of a personnel detector sensor, even though a rejection based on this statute is not explicitly stated, as is normally required to permit Applicant to respond appropriately.

With all due respect, Applicant submits that the personnel detector is <u>very</u> important and highly utilitarian. Carmody will not perform the invention as claimed by Applicant's system which explicitly requires the personnel detector, and which the Office Actions admits to be absent in the Carmody system. This is because many regulators, and because many of those who are in the business of selling wastewater systems, believe that the majority of scheduled inspection reports are

falsified! Carmody is also oblivious to this significant problem. Applicant's opinion is that a conservative estimate is that approximately 80% of scheduled inspection reports are falsified, and in some states, the number is likely to be closer to 100% especially for certain types of wastewater systems such as aerobic wastewater systems that require regular inspection, and/or maintenance, and/or service, and/or operation to reliably produce wastewater suitable for contact with humans. For obvious reasons, the actual statistics are unknown. However, regulators and those in the business suspect that the percentage is quite high.

Some states, such as Tennessee, have effectively banned the use of aerobic wastewater systems for many years (possibly decades), not because aerobic wastewater systems do not work (they do), but simply because the State of Tennessee Department of Environment and Conservation and more specifically the Division of Groundwater Protection personnel flatly do not trust maintenance service companies to perform the required inspections, and will not risk thereby damaging the environment. The inventor is now in contact with the State of Tennessee Division of Groundwater Protection which has told the inventor that if the inventor's system will actually let the regulators know that the service personnel has actually been to the site (by means of the personnel physical presence electronic sensor which provides independent third party verification), then the State of Tennessee Division of Groundwater Protection would reconsider its longstanding policy! The fact that those of skill in the art with this much experience would place such value on this feature is a strong indication of the non-obviousness of this feature as well as the utility thereof. Other regulators in Texas have also shown great interest in the system for the same reason, i.e., third party verification that routine maintenance and/or repairs have actually been performed. Numerous Texas Environmental Regulatory Agencies are very interested in Applicant's system and Applicant is presently negotiating contracts for use thereof. An affidavit to this effect can be obtained from one or more governmental regulators, if desired. Therefore, the use of a physical presence detector clearly has significant utility to those of considerable experience, skill, and knowledge in this field of endeavor. Accordingly, to the extent a rejection based on 35 U.S.C. 101, for lack of any additional utility with respect to the addition of a personnel detector sensor, this rejection is respectfully traversed.

Applicant respectfully requests the Examiner to consider the following situation:

When purchasing an aerobic wastewater treatment system, a purchaser is normally required by regulations at the time of purchase to also purchase two years of scheduled inspection and maintenance services. One service company sells the wastewater system, such as an aerobic wastewater system which requires regular inspection and maintenance for producing treated wastewater for \$3000 and includes \$300 of that amount to pay the cost of maintenance personnel who must go drive out to the location a specified number of times per year to inspect and/or maintain and/or service the wastewater system, as required by statute. Another service company sells the aerobic wastewater system for \$2700 because he knows that he will not actually send anyone to provide the scheduled inspection service unless called by the customer for repairs, even though theoretically his price also includes the cost of two years of regularly scheduled inspections and/or maintenance regardless of the site owner's request for repairs, as per the regulatory requirements. Which service company, the honest service company or the dishonest service company, is the innocent consumer most likely to purchase from? It should be clear from the above discussion that honest service companies and honest equipment manufacturers who want to comply with regulations are at a competitive disadvantage if they wish to operate honestly because their costs will be several hundred dollars higher per unit.

Carmody fails to grasp that in Carmody's step 312 [0126] for the Carmody system (complete service report for each work order completed) the most likely result thereof is a computerized means for quickly and easily automating the falsification of inspection work reports (especially for those types of wastewater systems which require regular inspections, operational adjustments, and/or scheduled maintenance work to insure production of treated wastewater) - a dubious benefit indeed!

To illustrate the problem of third party verification in another way that may be of interest to the Examiner, a hypothetical court case is provided where the Owner sues the maintenance company for failure to make scheduled inspections. (This hypothetical court case is hereby specifically provided only as a mere hypothetical illustration of the potential problems solved by Applicant's

design and is not intended to set forth a factual history of any actual or specific case). In Court, the owner, who paid several hundred dollars for annual inspection and maintenance, declares to the Judge that the maintenance person did not show up. The maintenance person declares to the Judge that he showed up and made the required inspections on schedule, but the owner was not home. The Judge asks each party for proof of their allegations. The owner cannot prove that the maintenance person did not show up because the owner is not home 24 hours per day. Then the maintenance person said he has proof he was there because he records the times of each service on a record, which he keeps in an electrical box near the owner's wastewater system. The bailiff is sent by the Judge to retrieve a piece of weathered looking paper from the electrical box wherein obviously different pens were used to note each maintenance service and the dates thereof. Based on this evidence, the Judge dismisses the case in favor of the maintenance person. However, the maintenance person later admits to friends that he had actually never made the maintenance calls for which he was paid. Instead, he had gone out to the owner's location the night before the trial and placed a fabricated paper record in the electrical box.

As noted in Applicant's prior art statement, page 2, line 23-26, states have previously required that stickers or punch out cards be used at the wastewater site so that the presence of the maintenance personnel could be ascertained by regulatory personnel who could then spot check the punch out cards or stickers. However, this system has never worked because the simple truth is that regulatory agencies do not have anywhere near the manpower that would be required to be able to spot check, keep up with, and monitor the stickers/punch out cards at the hundreds of thousands of widely distributed and different types and locations of wastewater systems wherein the different types require different servicing schedules.

Under M.P.E.P. 2141.01, Scope and Content of the Prior art, Section III entitled "Content of the Prior Art Is Determined at the Time the Invention Was Made to Avoid Hindsight", the Examiner is required to ascertain the state of the prior art prior to the invention. The situation prior to the present invention is that honest installation owners are frustrated because they do not think service personnel are providing the services which they have paid for, honest service companies are

frustrated and run out of business when they incur the costs required to follow regulations that other service companies simply do not provide regardless of the regulations, honest equipment manufacturers are frustrated because they are limited in the types of products that can be sold, and environmental regulators discourage or disallow use of wastewater systems requiring regular inspections, adjustments, and maintenance for reliable operation such as aerobic wastewater systems which would otherwise provide highly valuable additional environmental protection technology if means existed that would insure wastewater systems are properly inspected, maintained, and/or operated properly in the manner required for each type of wastewater system. Clearly, the problems in the art of third party verification as illustrated above are not solved by Carmody or even recognized by Carmody. Therefore, the rejection under 35 U.S.C. 103(a) is traversed. Moreover, Carmody admittedly does not disclose the limitation of a personnel physical presence detector at each of the plurality of wastewater systems as specifically required. Therefore, the rejection that Applicant's invention is obvious over Carmody under 35 U.S.C. 103(a) should be withdrawn, and Applicant earnestly requests reconsideration.

The cited references from Carmody (0001, 0066, 0072, and 0091) teach only monitoring of service records (which may be based largely on falsified information), time periods (which may also therefore be based on largely falsified information), and calls from owners requesting service (which are for reasons stated above are unlikely to occur especially for certain types of wastewater systems). The mere organizing of record keeping and standardized forms to be filled by contractors at various government offices is extremely well known (See as an example standard patent forms for the U.S. and PCT patent applications, as well as Trademark forms for a variety of communications and purposes, at the USPTO website). Moreover, Carmody's record keeping is of highly dubious value due to significant potential for falsifications/lack of reporting, for those wastewater systems requiring scheduled inspections, maintenance, service, and/or operational oversight, and does not solve long standing real problems of the industry of third party verification by Applicant's step of automatically detecting the physical presence of the service personnel. Applicant also provides the convenience of automated record keeping, but because Applicant's records are independently verified, unlike

Carmody's, Applicant's automatically created records can actually be trusted and utilized by the regulators.

If the Examiner has any personal experience in this field whereby he believes the above statements are inaccurate or unrepresentative of the state of the art prior to the invention by Applicant, then Applicant must respectfully hereby requests the Examiner to provide such information in the record by Affidavit. Applicant apologizes in advance for the need to make this request for an Affidavit of any special knowledge, but Applicant is required by law to make this request for the record because Courts have determined that the Examiner is assumed to have correctly stated the state of the art prior to the invention unless an affidavit is specifically requested by Applicant, whereby Applicant may challenge such information. Accordingly, Applicant must hereby respectfully request such an affidavit if the above or below-listed facts are believed by the Examiner to be inaccurate or unrepresentative of the state of the art prior to Applicant's invention. Otherwise, it is respectfully submitted that the above facts and below listed facts constitute a record of the actual state of the art prior to the invention by Applicant.

If the Examiner has any personal doubts about the facts, Applicant's attorney hereby respectfully requests to set up a time for a telephonic interview between the Examiner, Applicant's attorney, and if possible the Applicant, to discuss in more detail the scope and content of the prior art, and the significant value of the personnel physical presence sensor for third party verification purposes rejections based on 35 U.S.C. § 103 must rest on a factual basis. "Objective evidence such as commercial success, failure of others, long-felt need, is relevant to the issue of obviousness and must be considered in every case in which they are present." See M.P.E.P. 2141.01 under the paragraph entitled "OBJECTIVE EVIDENCE MUST BE CONSIDERED."

State of the Art: The incontestable objective facts regarding the state of the art prior to the invention are as follows: (1) a severe problem of third party verification has been long-felt for many years in the wastewater industry as is well known by regulators. (2) Carmody, the primary cited reference, is oblivious to this problem, and does <u>not</u> solve this problem. (3) The problem of third party verification has never been solved <u>despite the best attempts</u> by those of skill in the art as

discussed above, as listed in the prior art section, and as shown in the voluminous art from direct competitors in the industry cited by Applicant in his Information Disclosure Statement. (4) The failures by those of skill in the art, including Applicant's direct competitors, to solve the problem are cataloged by Applicant in the prior art section of this application is tangible evidence of the nonobviousness of the invention to those of skill in the art. (5) The problems solved by Applicant have never been solved even though high motivation exists to do so because of the well recognized threat to the environment due to poorly maintained wastewater systems, e.g., polluted recreational water, drinking water, and resulting disease. (6) With Applicant's system, a regulator in his office, who is responsible for tens or hundreds of thousands of wastewater installations, will finally know whether and when the maintenance personnel have actually been at each and every site, whether each active site is presently under a maintenance contract as required by statute, and whether maintenance personnel respond to equipment sensors that indicate malfunctions within the required time limit, or not, and of course whether the status of the equipment sensors changed to indicate proper functioning as a result of the response by maintenance personnel. (7) Regulators are presently showing great interest in Applicant's invention which has been reduced to practice, and commercial success in the form of contracts for Applicant's for sale are presently imminent at the time of writing this Response. The commercial success of Applicant's invention is due to largely to providing solutions to the problems of third party verification problems to the immense satisfaction and excitement of regulators. This commercial success is also tangible evidence of non-obviousness. (8) However, Applicant's invention also solves problems of other parties than the regulators. For instance, site owners will be able to easily log into the system to determine with confidence of third party verification when service was performed, and how long the service took, so that they can reconcile the costs of the maintenance fees for which they receive bills. (9) Honest maintenance service companies have the benefit of a level field of competition where falsified reports by disreputable service companies can no longer be utilized to generate substantial income, and where honest maintenance service companies are faced with the prospect of either becoming dishonest or going out of business.

Accordingly, because rejections based on 35 U.S.C. § 103 must rest on a factual basis. Because facts contrary to the above-listed facts that indicate Applicant's invention is non-obvious have not been presented, the rejection under 35 U.S.C. 103(a) over Carmody is respectfully traversed. Carmody is also respectfully traversed due to the above-discussed fact that Carmody plainly does not disclose all claim limitations as required to support a rejection under 35 U.S.C. § 103.

With respect to claims 8-9, the Office Action apparently states it would be obvious to modify Carmody as per Jurca (US 4,949,263), Witts et al (US 4,401,994) although no new rejection under 35 U.S.C. 103 is specifically given. With respect to claims 10-11, 19, 23, 36, 48, 57, and 64, the Office Action apparently states it would be obvious to modify Carmody as per Kahleck (US 5,673,190) although no new rejection under 35 U.S.C. 103 is specifically given. Assuming these statements are intended to state a new basis for rejection which was not formally stated, Applicant respectfully reminds the Examiner that there must be a motivation to combine prior art references. In re Warner, 379 F.2d 1011, 1017, 154 USPO 173, 177-78 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). "In making such a rejection, the Examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis." Because Carmody clearly provides no motivation whatsoever to combine the prior art references, and indeed does not even recognize the problem of third party verification, there is no motivation to combine Carmody with Jurca (US 4,949,263), Witts et al (US 4,401,994), or Kahleck (US 5,673,190), even assuming it is possible to do so, as is also necessary to maintain a rejection under 35 U.S.C. 103(a). It is also noted Jurca (US 4,949,263), Witts et al (US 4,401,994), or Kahleck (US 5,673,190) are unrelated to wastewater systems and therefore constitute non-analogous art which is inapplicable to the present case.35 U.S.C. 103(a) over. Moreover, to the extent a rejection was made it is respectfully traversed for the fact that Carmody does not disclose all claim limitations of the base and the cited references do not cure this Finally, the state of the prior art as listed above is directly contrary to a finding of problem. obviousness because of the prior art failure correct the long standing and significant problems of the prior art which only the present invention solves.

Claims 75-87 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Carmody (US 2002/0143596) in view of Ryan et al. (US 2003/0055669). It is respectfully noted that Ryan was not filed until August 15, 2002, approximately one year after Applicant's filing date, and is therefore not a prior art reference. While Ryan refers to a provisional application filed prior to Applicant's filing date, Applicant has no access to the provisional application and therefore cannot verify that the features of Ryan upon which the rejection is based are actually present in the provisional application. Therefore, because Ryan et al. (US 2003/0055669) itself is not actually prior art, the rejection to claims 75-87 based on Carmody as modified by Ryan et al. is respectfully traversed. Moreover, because Carmody does not include all elements of the claims as discussed above, the rejection is traversed in any case because Ryan does not cure this infirmity.

Accordingly, Applicant respectfully submits that the application now stands in condition for allowance and earnestly requests that a Notice of Allowance to be issued forthwith in the near future for the benefit of the parties involved discussed above as well as for the benefit of the public in general.

Respectfully submitted,

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I certify that this document and fee is being deposited on November 13, 2003 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Cathy Hayes